

Appl. No. 10/816,064  
Amdt. Dated , 20<sup>th</sup> May, 2005  
Reply to Office Action of January 25, 2005

## REMARKS/ARGUMENTS

This amendment is responsive to the Office Action mailed on January 25, 2005. In the Office action claims 1-5, 28-31, 44 and 48, were rejected under 35 U.S.C. §102 (b) as being anticipated by Burke et al. (U.S. Patent No. 5,305,363, hereinafter "Burke"). Claims 6-27, 32-43, 45-47, and 49-58 were objected to but were deemed allowable if rewritten in independent form.

In this amendment, claims 1, 2, 7, 9, 11, 13, 15, 18, 20, 23, 25, 28, 29, 33, 40, 44, 50, 53, 55 and 58 (add other claims amended to recite "volumetric". have been amended to recite the subject matter more clearly. A new claim, claim 59 has been added and claim 48 has been cancelled. No new matter has been added.

Claims 1- 47, 49-59 remain pending in this application. Reconsideration in light of the above amendments and the following remarks is respectfully requested.

### Claims define allowable subject matter over the applied art

Claims 1-5, 28-31, 44 and 48, were rejected under 35 U.S.C. §102 (b) as being anticipated by Burke. Applicant has carefully reviewed the applied reference, and has amended the independent claims 1, 28 and 44 and dependent claims 2, 7, 9, 11, 13, 15, 18, 20, 23, 25, 29, 33, 40, 50, 53, 55 and 58 to recite the subject matter more clearly in order to distinguish from the applied reference. No new matter has been added. Applicant respectfully traverses the rejection of independent claims 1, 28 and 44, as amended, under 35 U.S.C. §102 (b) as being anticipated by Burke. To anticipate a claim under 102, each and every element of the claim must be taught by the reference.

Independent claims 1, 28 and 44 and dependent claims 7, 9, 11, 13, 15, 18, 20, 23, 25, 33, 40, 50, 53, 55 and 58 have been amended to include the word "mathematical completeness of acquired volumetric data". Support for this amendment can be found in the detailed description in paragraphs [0053] –[0058], [0060], [0063], [0072], and [0074]. The data being acquired in the Applicant's invention is volumetric data and this aspect has also been added to the Independent claims 1, 28, and 44. Independent claims 1, 28 and 44 have been further amended to include the recitations of "a source controller for triggering one or more emitters in the at least one stationary distributed X-ray source for acquiring volumetric data by the at least one stationary detector". Support for this amendment can be found in paragraph [0040], [0041], [0045].

Applicant respectfully submits that Burke does not teach, disclose or suggest the claim recitations of "mathematical completeness of acquired volumetric data" nor does Burke teach, disclose or suggest Applicants'

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recited "volumetric" aspect of the acquired data for reconstruction, as recited in the amended independent claims 1, 28 and 44.

Applicant respectfully submits that the different source-detector configurations in the Applicant's application are directed towards having source-detector geometries that result in acquiring complete information about an imaged region. Mathematically complete aspect includes better coverage and quality of data (See, paragraph [0007] of the Applicant's application). In contrast, the embodiments disclosed in Burke are directed merely to reduce the rotational components in computed tomography imaging system (column 1, lines 15-65). Burke discloses a stationary source embodiment in FIGS. 3-5. However, nowhere in the disclosure of these embodiments does Burke try to address the issue of "data completion" as recited in the independent claims 1, 28 and 44. Infact, Burke in column 8, lines 60-69, teaches away from the use of the source-detector geometry for addressing the "data completeness" aspect since Burke discloses using conventional imaging means for making "adjustments" and "offsets". Burke further discloses "algorithm" based corrections for image reconstruction in column 9, lines 1-5, thus again teaching away from the recitations of "the at least one stationary detector and the at least one stationary distributed X-ray source are configured to cooperate to contribute towards mathematical completeness of the acquired volumetric data for image reconstruction" in the independent claims of the Applicant's application.

It will be also be evident to one skilled in the art that Burke deals only with two dimensional data for image reconstruction and there is no disclosure, teaching or suggestion that may lead to the recitation of "acquired volumetric data for image reconstruction", as recited in the independent claims 1, 28, and 44.

Applicant further submits that the Burke reference does not disclose, teach or suggest the claim recitations of "a source controller for triggering one or more emitters in the at least one stationary distributed X-ray source for acquiring volumetric data by the at least one stationary detector", as recited in amended independent claims 1, 28 and 44.

Burke in column 7, lines 15-50, refers to a grid assembly for focusing the generated electron beam in a circumferential direction and radial direction. This results in the electron beam being stepped, or moved in other selected patterns, around the anode. But nowhere, does Burke disclose, teach or suggest the triggering of emitters, as recited in the independent claims 1, 28, and 44. The grid assembly and associated switching means of Burke are applied on the "generated" electron beam. In fact, Burke is completely silent on how the electron beam may be triggered.

Thus Burke is completely devoid of any teaching, disclosure or suggestion that can lead to the above mentioned claim recitations of independent claims 1, 28 and 44, as amended. Thus the Applicant respectfully submits that the independent claims 1, 28 and 44 as amended are not anticipated by Bruke under 35 U.S.C. §102

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and therefore, are allowable. Claims 2-27 depend directly or indirectly from claim 1, claims 29-43 depend directly from claim 28, and claims 45-47, 49-58 depend directly or in-directly from claim 44. These dependent claims are similarly allowable. Claim 59 has been added as a new claim and depends from claim 1. Support for this claim can be found in the paragraphs [0048] and [0049]. Since claim 1 is not anticipated by the applied reference, claim 59 is similarly allowable.

In view of the foregoing remarks, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. §102 (b).

Summary

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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Attachment: Petition and Fee for Extension of Time